Appendix A
Marked Up Version of Changes

In the Specification:

Please replace the paragraph starting on page 9, line 8:

Fig. 4 illustrates an exemplary process for controlling the back-pressure within the local reservoir 34 of the print cartridge block diagram of Fig. 3. In this example, a desired predetermined back-pressure range from –2 to –6 inches of water, is assumed. This example also assumes that when the back-pressure reaches a pressure of –1 inch of water that enough air has accumulated in the local reservoir 34 such that it needs to be evacuated to prevent drooling of fluid from the printhead 36. The process would start by using the pressure sensor 32 to sense the back-pressure in block 50. In decision block 51, the back-pressure is checked to determine if it is greater than –1 inch of water. If so, then the vacuum valve is activated in block 54 to allow the air accumulated in the local reservoir to be drawn into the vacuum reservoir, thus lowering the back-pressure. The process then returns to block 50. In decision block 51, if the back-pressure is less than –1 inch of water, then in block 52 the vacuum valve 42 is deactivated to prevent any further air or fluid from reaching the vacuum reservoir 44. In block 56, the pressure is checked to determine if it is less than –2 inches of water. If it is not then the first regulator valve [38]40 is deactivated in block 58 to prevent fluid from the fluid inlet 26 from entering the local reservoir and increasing the pressure. The process would then return to block 50. In block 56, if the pressure is less than –2 inches of water, then in block 60, the first regulator valve 40 is activated to allow fluid to flow into the local reservoir 34 from fluid inlet 26 thus raising the pressure within local reservoir 34. If the printhead is expelling fluid at a volumetric rate greater than the fluid entering the first regulator valve 40, however, the amount of fluid within local reservoir 34 will decrease, and the pressure inside it will continue to drop. In decision block 62, the pressure is checked to determine if the maximum negative pressure of –6 inches of water is reached. If it has not been reached, then the second regulator valve 38 is deactivated in block 64 and the process returns to block 50. If the maximum negative pressure of –6 inches of water has been reached, then in block 66, the second regulator valve 38 is

activated to increase the flow of fluid into the local reservoir 34. The process then returns to sensing the back-pressure in block 50. By performing these steps, the back-pressure within local reservoir 34 can be maintained within an exemplary tight range of –2 to –6 inches of water. If the air released from the fluid in local reservoir 34 over time causes the minimum negative pressure to increase from –2 to –1 inches of water, then the vacuum valve will be activated to expel the air inside local reservoir 34 so as to prevent the back-pressure from getting higher than –1 inches of water. This pressure value of –1 inches of water will prevent the drooling of fluid from the printhead 36.

In the Claims:

35. (Amended) A method for regulating pressure in a print cartridge, comprising the steps of:

sensing the pressure;

activating a first flow valve when the pressure is less than a first predetermined limit;

deactivating the first flow valve when the pressure is not less than the first predetermined limit;

activating a second flow valve in parallel with said first flow valve to a fluid source when the pressure is less than a second predetermined limit; and

deactivating the second flow valve when the pressure is not less than the second predetermined limit.

43. (Amended) A method for recharging [a]the print cartridge having the method for regulating pressure as in claim 42, the method comprising the steps of:

injecting fluid into a fluid source within the print cartridge; and

withdrawing air from a vacuum reservoir within the print cartridge.